REMARKS

New drawing Figs.1(C), 1(D), 2(A), and 2(B), are submitted as replacement sheets, and are discussed below. No new matter is entered. Approval is requested.

The features added to claim 1 are illustrated in Fig.1(B), and are described in the specification at page 18, lines 9-22. The peripheral edge is recited at page 16, line 6. The addition of "wider" to claim 7 is supported at page 19, line 3. The "side" surface in claim 4 is supported at page 45, lines 2-8 and Fig. 2(A), showing that only the side surfaces of the electrode posts 46, not the tops, are in contact with the sealing portion 44. In response to the Official Action:

[1] Independent claim 1 is amended, and dependent claims 4 and 7 are also amended, as discussed below. Dependent claims 11 and 16, corresponding to claims 4 and 7, are likewise amended, and withdrawn claim 10 is amended to depend from claim 1,so that claim 1 is now generic. Claims 11-20 depend from claim 10. If claim 1 is allowed, then claims 10-20 should be reinstated and allowed.

[2] The drawings were objected to for not showing various features:

(1) The wiring patterns extended from the electrode pads to the surface of the extension portion (claim 1): This objection is traversed for the record, because the wiring pattern 42 is shown in Fig. 1(B) to extend from the electrode pad 34 on the first main surface 36 of the chip 30, across the boundary (the dashed line in Fig. 1(B)) and over the surface of the extension portion 20, and claim 1 recites wiring patterns "formed on said insulating film," so that direct contact between the wiring pattern 42 and the extension portion 20 is not required to be shown.

However, claim 1 is now amended to more explicitly recite "a plurality of wiring patterns ... extended from said electrode pads to the surface of said insulating film on said extension portion," which is believed to overcome the rejection, as it is understood. If it does not, then clarification is requested.

(2) The thin oxidation layer (claim 4): This objection is respectfully traversed on the basis that an oxidation layer is so thin, relative to the other parts, that it would have been impractical to depict it on the drawing. Very thin coatings, like the paint on a refrigerator, are not usually specifically illustrated for this reason.

However, in deference to the Examiner's opinion, a new drawing Fig. 2(B) is submitted which illustrates the oxidation layer and applies reference numeral 49b. The Applicant notes that the view is schematic and the oxidation layer 49b is not drawn to scale.

In the amended drawing, reference numerals 46a and 46b show the "top surface" and "side surface" of the electrode posts 46, while reference numerals 49a and 49b respectively indicate the nickel film as a barrier metal layer (supported in the specification at page 30, lines 20-22) and thin oxidation layer as a barrier metal layer (supported in the specification at page 45, lines 3-6).

(3) The wiring pattern at the boundary being formed more thickly or wider (claim 7): This objection is traversed for the record, as the dashed-line ovals 42X in Fig. 1(B) illustrate the portion which is thicker (and/or wider as now claimed) and the difference in thickness will not be visible in Fig. 1(B), which is a plan view, and will not be visible in Fig. 2 because that view is a sectional view at a cut that does not include the thicker portion. The Applicant respectfully submits that the combination of the text description with the dashed-line oval 42X clearly indicates the claimed subject matter.

However, in deference to the Examiner's opinion, the Applicant has now submitted additional drawing Figs. 1(C) and 1(D) which very clearly show this feature. No new matter is entered, as "wider" and "thicker" were already disclosed, and the illustrated rectangular portion is the simplest possible way to illustrate these features.[1]

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[1] The Applicant cannot comply with the Examiner's requirement without showing *some* shape of the wider and thicker portion. It is noted that the rectangular shape is not claimed.

[3] The drawings were also objected to for the appearance that element 20 referred to the same structure as element 20a, because the line from element 20 adjoined the line from element 20a. This is corrected in revised Fig. 2(B).

[4-5] Claim 4 was rejected under § 112, first paragraph, on the basis that the oxidation layer would have insulated between the post and terminal. Claim 4 is amended to clarify that the oxidation layer is on the *side* surface, and the specification and drawing are amended to provide support for this claim language, as is noted above.

[6-7] Claim 1 was rejected under § 112, second paragraph. This rejection is respectfully traversed for the record, on the basis explained above in ¶[2](1). As noted there, claim 1 is now amended in lines 14-17 to read, "a plurality of wiring patterns ... extended from said electrode pads to the surface of said insulating film on said extension portion," which is believed to overcome the rejection.

[8-9] Claims 1-3 and 5-7 were rejected under § 102 over Nakamigawa JP '556. This rejection is respectfully traversed.

Claim 1 now recites electrode pads arranged in a first direction, and external terminals arranged in a second direction perpendicular to the first direction and electrically connected in a one-on-one connection relationship to the pads. This arrangement gives the semiconductor designer a greater degree of design freedom regarding the pitch, positions, and so on, of the external terminals (this advantage is set out in the specification at page 5, line 20). In addition, improvements in operational speed, functional sophistication, number of functions, compactness, and operational reliability can be achieved (set out in the specification at page 5, line 26).

Nakamigawa does not disclose the features of amended claims 1-3 and 5-7, and does not provide the advantageous effects achieved by the Applicant. Withdrawal of the rejection is requested.

[10-11] Claim 4 was rejected under § 103 over Nakamigawa in view of Tung '495. This rejection is respectfully traversed.

Tung, like Nakamigawa, does not disclose the features of amended claim 1. Therefore, no combination of these references (not admitted obvious) would reach the instant claims.

The applied barrier layer 25 is not on the side of a side surface of an electrode, as claim 4 now recites. It appears to be on a top surface.

Nakamigawa's aim is preventing the breakage of a connecting portion between the printed board and external electrodes. A resin layer is provided on the substrate for aligning the thermal expansion of the substrate and printed board, and the external electrodes are on the resin layer. Tung's object is an improved conductive bumps 50 (col. 2, line 41). With respect, the two references are concerned with different things and no suggestion to combine them is seen in the references themselves. Neither does the rejection include any reasoned argument.

[12] Claims 8 and 9 were rejected under § 103 over Nakamigawa in view of Ma '469. This rejection is respectfully traversed on the grounds above. Ma does not disclose the features of amended claim 1, or of claims 8 and 9. With respect, the Examiner has merely inferred the Applicant's features. No actual disclosure is seen.

In view of the present amendments, withdrawal of the objections and rejections is requested.

Respectfully submitted,

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I certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office (fax no. 571-273-8300) on February 16, 2006.

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